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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,660	03/29/2004	Adrian P. Stephens	P-9630-US	3424
49444	7590	02/21/2008	EXAMINER	
PEARL COHEN ZEDEK LATZER, LLP 1500 BROADWAY, 12TH FLOOR NEW YORK, NY 10036			FOUD, HICHAM B	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/812,660	STEPHENS, ADRIAN P.	
	Examiner Hicham B. Foud	Art Unit 2619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 21 November 2007.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-9, 12-17, 21-26, 28-31, 33 and 34 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-9, 12-17, 21-26, 28-31, 33 and 34 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____. | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment filed on 11-21-2007 has been entered and considered.

Claims 1-9, 12-17, 21-26, 28-31 and 33-34 are pending in this application.

Claims 10-11, 18-20, 27 and 32 have been canceled.

Claims 1-9, 12-17, 21-26, 28-31 and 33-34 remain rejected as discussed below.

Specification

2. The abstract of the disclosure is objected to because it does not describe the invention as a whole. Correction is required. See MPEP § 608.01(b).
3. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

Claim Objections

4. Claims 23-26, 28-31 and 33-34 are objected to because of the following informalities:

Claim 23 depends on the cancelled claim 18.

In claim 24, note that claim scope is not limited by claim language that suggests or makes optional but does not require steps to be performed, or by claim language that does not limit a claim to a particular structure, such as by using the term "adapted to" and/or "able to". Therefore, claim language following this phrase will not be considered.

In claim 31 line 3, the term "and" needs to be deleted and placed before the last limitation. Similar problem occurs in claim 24.

Claim 33 depends on the cancelled claim 32.

Claims 25-26, 28-30 and 34 are objected because of their dependency on the objected claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 3 line 4, the term "the multicast schedule" is confusing because it is not known if the term refers back to "a multicast schedule" recited in the same claim or to the one mentioned in the claim 1 line 4.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-3, 5 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pecen et al (US 2005/0083961) in view of Angle et al (US 2003/0174701) hereinafter referred to as Pecen and Angle respectively.

For claim 1, Pecen discloses a method for delivering information in a wireless network, the method comprising: receiving from a client, a request for delivery of the information (see Figure 2 box 204; wherein the user sends a request); creating a multicast in response to the request (see Figure 2 step 206; storing record of devices requesting multicast which means making a list of the devices participating in the multicast) and sending the information to the client according to a multicast (see Figure 2 box 212; wherein the base station of Figure 1 element 112 sends the multicast data). Pecen discloses all the subject matter with the exception of explicitly disclosing the scheduling of the multicast. However, Angle discloses a scheduler that schedules the multicast data based on the priority (see Fig. 2 element 215; Multicast scheduler).

Thus, it would have been obvious to the one skill in the art at the time of the invention to use the multicast scheduler as taught by the invention of Angle into the system of Pecen for the purpose of satisfying the priorities by having QOS and therefore increasing the flexibility and the efficiency of the system.

For claim 2, Pecen discloses a method further comprising: sending a response to the client confirming scheduling of the request (see Figure 2 box 208 and paragraph 0024; wherein a signaling message is sent to clients to confirm the scheduling which includes TMGI).

For claim 3, Pecen discloses a method further comprising: determining whether a multicast schedule created in response to a previous request from another client exists for the request (see Figure 2 box 206; wherein storing record of mobile device requesting multicast; inherently, there is no multicast schedule exists for the request); and if not, creating the multicast schedule (see Figure 2 box 204)

For claim 5, Pecen discloses a method further comprising: deleting the multicast schedule after all clients associated with the multicast schedule have been sent the information (see Figure 2 box "stop" the end of the cycle; inherently, the multicast schedule was deleted after sending the multicast media).

For claim 8, Pecen discloses a method wherein the response comprises a TSPEC response (see Figure 2 box 10 and paragraph 0026; wherein the clients that requested the multicast configures itself to receive the multicast data in response to signaling message; inherently the signaling message comprises of traffic specification (TSPEC)).

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pecen in view of Angle and further in view of Pung et al (US 2002/0150099) hereinafter referred to as Pung.

For claim 4, Pecen in view of Angle discloses all the subject matter with the exception of wherein the request includes a multicast address and a quality of service (QoS) identifier. However, Pung discloses a method in communication networks wherein the request includes a multicast address and a quality of service (QoS) identifier (see the fields of the request in Figure 4A; the multicast ID (MT-ID) and the QOS). Thus, it would have been obvious to the one skill in the art at time of the invention to use the request as taught by the invention of Pung into the invention of Pecen in view of Angle for the purpose of identification and satisfaction of quality of service constraints.

8. Claims 12 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pecen in view of Angle, further in view of Vook et al (US 5,636,220) and further in view of Pung et al (US 2002/0150099) hereinafter referred to as Vook and Pung respectively.

For claim 12, Pecen in view of Angle and further in view of Vook discloses all the subject matter with the exception of wherein the request includes a multicast address and a quality of service (QoS) identifier. However, Pung discloses a method in communication networks wherein the request includes a multicast address and a quality of service (QoS) identifier (see the fields of the request in Figure 4A; the multicast ID (MT-ID) and the QOS). Thus, it would have been obvious to the one skill in the art at

time of the invention to use the request as taught by the invention of Pung into the invention of Pecen in view of Angle and further in view of Vook for the purpose of identification and satisfaction of quality of service constraints.

For claim 33, Pecen in view of Angle and further in view of Vook discloses all the subject matter with the exception of wherein the requests comprise a transmission specification (TSPEC) including a multicast address and a quality of service (QoS) indicator. However, pung discloses a method in communication networks wherein the request includes a multicast address and a quality of service (QoS) identifier (see the fields of the request in Figure 4A; the multicast ID (MT-ID) and the QOS). Thus, it would have been obvious to the one skill in the art at time of the invention to use the request as taught by the invention of Pung into the invention of Pecen in view of Angle and further in view of Vook for the purpose of identification and satisfaction of quality of service constraints

9. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pecen in view of Angle and further in view of Chuah et al (US 7,096,039) hereinafter referred to as Chuah.

For claim 6, Pecen in view of Angle discloses all the subject matter with the exception of wherein deleting the multicast schedule comprises receiving a deletion request from each client associated with the multicast schedule to delete the multicast schedule. However, Chuah discloses a method wherein each client needs to send a deletion message or a membership addition message to update the routing table and to know how many packets to be duplicated. Thus, it would have been obvious to the one

skill in the art at the time of the invention to use the method of updating the routing table by sending deletion messages as taught by the invention of Chuah into the invention of Pecen in view of Angle for the purpose of updating the routing table and thus increasing the efficiency of the system.

10. Claims 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pecen in view of Angle and further in view of Benveniste (US 2005/0152324).

For claim 7, Pecen in view of Angle discloses all the subject matter with the exception of wherein the wireless network comprises a wireless local area network (WLAN) and wherein the request comprises a transmission specification (TSPEC) request. However, Benveniste discloses a method in wlan (see Figure 1 and paragraph 0028) and wherein a request comprises a transmission specification (TSPEC) request (see paragraph 0032; station submits a TSPEC request). Thus, it would have been obvious to the one skill in the art at the time of the invention to use the request as taught by the invention of Benveniste into the invention of Pecen in view of Angle for the purpose of the AP (access point) to know in advance the estimate of the data traffic and associated requirement and therefore increase the accuracy and the efficiency of the system.

11. Claims 9, 13, 14, 17, 22-26, 28-32 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pecen in view of Angle and further in view of Vook et al (US 5,636,220) hereinafter referred to as Vook.

For claims 9, 24 and 31, Pecen discloses a method of receiving information in a wireless network, the method comprising: sending a request for delivery of the

information the request including a multicast designation address (See Figure 2 box 204; request for multicast); receiving a response confirming the multicast delivery of the information (see Figure 2 box 208 and paragraph 0024; wherein a signaling message is sent to clients to confirm the scheduling which includes TMGI) created in response to the request for the delivery of the information (see Figure 2 step 206; storing record of devices requesting multicast which means making a list of the devices participating in the multicast). Pecen discloses all the subject matter with the exception of explicitly disclosing the scheduling of the multicast. However, Angle discloses a scheduler that schedules the multicast data based on the priority (see Fig. 2 element 215; Multicast scheduler). Thus, it would have been obvious to the one skill in the art at the time of the invention to use the multicast scheduler as taught by the invention of Angle into the system of Pecen for the purpose of satisfying the priorities and having QOS.

Pecen in view of Angle discloses all the subject matter with the exception of configuring a power saving protocol to accommodate a scheduled delivery of the information. However, Vook discloses a method that schedules the delivery of the packets according to the power saving mode (see column 2 lines 8-17). Thus, it would have been obvious to the one skill in the art at the time of the invention to use the method of delivering packets as taught by the invention of Vook into the invention of Pecen in view of Angle to increase battery life of the wireless devices.

For claims 13, 26 and 34, Vook discloses a method wherein the wireless network comprises a wireless local area network (WLAN) (see Figure 1 which uses WLAN).

For claim 14, Pecen in view of Angle and further in view of Vook do not explicitly mention the use of OFDM. However, an official notice is taken in that OFDM can be used since OFDM is a digital multi-carrier modulation scheme. Thus, it would have been obvious to the one skill in the art at the time of the invention to use OFDM as a modulation scheme for the purpose of increasing the adaptation to severe channel conditions without complex equalization.

Claim 17 is rejected for same reasons as claim 9. Furthermore, Vook discloses an apparatus further comprising: a radio frequency (RF) interface (See Figure 2 element 200) coupled to the processing circuit (See figure 2 element 220).

For claim 22, Pecen discloses an apparatus wherein the apparatus comprises a wireless user station (STA)(see Figure 1 elements 114) and a network adaptor (See Figure 2 element 210).

For claim 23, Vook discloses an apparatus further comprising at least two antennas coupled to the RF interface (See Figure 2 elements 212).

For claim 25, Vook discloses an apparatus further comprising: a radio frequency (RF) interface (See Figure 2 element 200) coupled to the processing circuit (See figure 2 element 220).

For claim 28, Pecen discloses an apparatus wherein the processing circuit is to send the schedule to one or more requesting network devices as a transmission specification (TSPEC) response (see Figure 2 box 10 and paragraph 0026; wherein the clients that requested the multicast configures itself to receive the multicast data in

response to signaling message; inherently the signaling message comprises of traffic specification (TSPEC)).

For claim 29, Pecen discloses an apparatus wherein the processing circuit is further to buffer application data packets for the wireless multicast until a time indicated on the schedule (see Figure 2 Block 212; ending the multicast media and the last block “stop”; inherently, at the end of the schedule of delivering the multicast which can be based on time of the schedule).

For claim 30, Vook discloses an apparatus further comprising at least two antennas coupled to the RF interfaces for enabling multiple input multiple output (MIMO) communications (see Figure 2 elements 212; inherently; the use of multiple RF signals in the transceiver is for MIMO communications).

12. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pecen in view of Angle, further in view Vook of as applied to claim 9 above, and further in view of Benveniste.

For claim 15 Pecen in view of Angle and further in view of Vook discloses all the subject matter with the exception of wherein the request comprises a transmission specification (TSPEC). However, Benveniste discloses a method wherein a request comprises a transmission specification (TSPEC) request (see paragraph 0032; station submits a TSPEC request). Thus, it would have been obvious to the one skill in the art at the time of the invention to use the request as taught by the invention of Benveniste into the invention of Pecen in view of Angle and further in view of Vook for the purpose of the AP (access point) to know in advance the estimate of the data traffic and

associated requirement and therefore increase the accuracy and the efficiency of the system.

13. Claims 16, 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pecen in view of Angle, further in view of Vook of as applied to claim 9 above, and further in view of Chuah.

For claims 16 and 21, Pecen in view of Angle and further in view of Vook discloses all the subject matter with the exception of further comprising sending a schedule deletion request to delete a multicast schedule. However, Chuah discloses a method wherein each client needs to send a deletion message or a membership addition message to update the routing table and to know how many packets to be duplicated (see column 6 lines 23-27). Thus, it would have been obvious to the one skill in the art at the time of the invention to use the method of updating the routing table by sending deletion messages as taught by the invention of Chuah into the invention of Pecen in view of Angle and further in view of Vook for the purpose of updating the routing table and thus increasing the efficiency of the system.

Response to Argument

14. Applicant's arguments with respect to claims 1-9, 12-17, 21-26, 28-31 and 33-34 have been considered but are moot in view of the new ground(s) of rejection.

In Page 11 of the Remarks, the applicant argues that the reference (Pecen) does not teach "receiving from a client, a request for the information; creating a multicast schedule in response to the request" and further explained that the Applicant's client solicits the information as such information may be required by an application (see

Remarks page 11, paragraph 2). However, the examiner respectfully disagrees with the applicant because the claimed limitation is "a request for delivery of the information" (see claim 1 line 3) and **not** "a request for the information" as argued. Also, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., client solicits the information as such information may be required by an application) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed; and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

17. **Examiner's Note:** Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner. In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

When responding to this office action, applicants are advised to clearly point out the patentable novelty which they think the claims present in view of the state of the art disclosed by the references cited or the objections made. Applicants must also show how the amendments avoid such references or objections. See 37C.F.R 1.111(c). In addition, applicants are advised to provide the examiner with the line numbers and pages numbers in the application and/or references cited to assist examiner in locating the appropriate paragraphs.

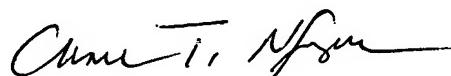
18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hicham B. Foud whose telephone number is 571-270-1463. The examiner can normally be reached on Monday - Thursday 10-3 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T. Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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